

REMARKS

Claims 11 and 12 have been canceled. Claim 18 has been amended. New claims 19 and 20 depending ultimately from claim 10 have been added. A new independent claim 21 and new dependent claims 22 and 23 depending ultimately from claim 21 have been added. Claims 10 and 13 – 23 are currently pending in the present application.

In the Office Action, the claims are objected to as misnumbered and claims 11, 12, and 18 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Additionally, in the Office Action, claims 10 – 18 are rejected under 35 U.S.C. §102(b) as being anticipated by European Patent Application No. 358279 A1 to Fried et al. Also, in the Office Action, claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 358279 A1 to Fried et al in view of US Patent No. 5,343,632 to Dinh.

The Objection To The Claims

With respect to the objection to the claims as misnumbered, it is noted that the claims have been amended to now provide for consecutively numbered claims. In this regard, it is noted that claims 13 – 18 (as well as newly submitted claims 19 and 20) depend ultimately from independent claim 10 while newly submitted claims 22 and 23 depend from independent claim 21.

The Rejection Of Claims 11, 12, and 18 under 35 U.S.C. §112, Second Paragraph

With respect to the rejection of claims 11, 12, and 18 under 35 U.S.C. §112, second paragraph, it is noted that claims 11 and 12 have now been canceled and claim 18 has been amended to delete the recitation “e.g. latent storage device.” Thus, it is submitted that the rejection of claims 11, 12, and 18 under 35 U.S.C. §112, second paragraph, is now obviated.

The Claimed Invention

An exemplary embodiment of the present invention, as recited by, for example, independent claim 10 of the present application, is directed to a dishwasher having a washing container, at least one device for washing crockery using a rinsing solution, and a sorption column communicated with the washing container for the passage of air between the sorption column and the washing container. As recited in claim 10 of the present application, the sorption container contains reversibly dehydratable material that operates to withdraw moisture from air during the passage of the air through the sorption column, crockery retained in the dishwasher being subjected to a drying step after having undergone a treatment step as a result of which moisture remains on the crockery with the drying step including passing air from the washing container through the sorption column. Also, the sorption column is subjected to thermal energy to effect desorption of the sorption column with the thermal energy being at least partly used for at least one of heating the rinsing solution in the washing container and heating the crockery.

The inventive dishwasher advantageously offers an efficient and economical operation to clean and dry items while minimizing the associated energy expenditures.

The Rejection Of Claims 10 – 18 under 35 U.S.C. §102(b) as Being Anticipated By European Patent Application No. 358279 A1 to Fried et al

With respect to the rejection of claims 10 – 8 under 35 U.S.C. §102(b) as being anticipated by European Patent Application No. 358279 A1 to Fried et al, favorable reconsideration is respectfully requested in view of the cancellation of claims 11 and 12, the amendment of claim 18, and the following comments.

The Office Action asserts that European Patent Application No. 358279 A1 to Fried et al discloses a dishwasher with all of the elements of the dishwasher recited in claim 10 of the present application. In its enumeration of the allegedly disclosed

elements of the dishwasher found in European Patent Application No. 358279 A1 to Fried et al, the Office Action states, in Paragraph 9 on Page 4, that "...the heating element [of the European Patent Application No. 358279 A1 to Fried et al dishwasher] which dries the desiccant is also used to heat the rinsing water (machine translation, page 2, ll. 6-8, "Around the instantaneous...", machine translation, page 2, ll. 21-23, "With the next start-up...) see also Fig, parts 7 and 3, drying container and instantaneous water heater respectively)."

It appears that the Office Action is thus alleging that this feature of the European Patent Application No. 358279 A1 to Fried et al arrangement – namely, the feature that the heating element of the European Patent Application No. 358279 A1 to Fried et al dishwasher which dries the desiccant is also used to heat the rinsing water – is a teaching of the feature recited in claim 10 of the present application that the sorption column is subjected to thermal energy to effect desorption of the sorption column with the thermal energy being at least partly used for at least one of heating the rinsing solution in the washing container and heating the crockery. However, it is submitted that the passages of European Patent Application No. 358279 A1 to Fried et al pointed out by the Office Action do not support an assertion that European Patent Application No. 358279 A1 to Fried et al teaches or discloses this feature recited in claim 10 of the present application. Moreover, as will be seen, other passages of European Patent Application No. 358279 A1 to Fried et al appear to support instead the opposite conclusion that European Patent Application No. 358279 A1 to Fried et al does not teach or disclose this feature.

Claim 10 of the present application recites the feature of the inventive dishwasher that the sorption column is subjected to thermal energy to effect desorption of the sorption column with the thermal energy being at least partly used for at least one of heating the rinsing solution in the washing container and heating the crockery. With reference to the sole figure of the drawings of the present application, the present application discloses an embodiment wherein the reversibly dehydratable material 11 is located within the sorption column 10 and the sorption column 10 is communicated through the pipes 6, 8 with the washing container 2. Thus, after the reversibly

dehydratable material 11 has extracted moisture from the air that has flowed over it, the reversibly dehydratable material 11 is itself desorbed by the application of an amount of energy to the reversibly dehydratable material 11. Furthermore, the energy used for such desorption is usable for heating the rinsing solution and/or the crockery. See, for example, Page 9, lines 14 – 21 of the present application: “Thus, further heating can largely be dispensed with and, apart from the small amount of energy required to overcome the binding forces between water and reversibly dehydratable material, the thermal energy used for desorption can be also completely used for heating the treatment liquid, the rinsing solution and/or the crockery. In addition to the saving of energy, efficient cleaning of the items to be cleaned and treated is furthermore ensured.”

To the extent understood, the European Patent Application No. 358279 A1 to Fried et al arrangement does not appear to teach or disclose such a feature. Referring now to Figures 1 and 2 of European Patent Application No. 358279 A1 to Fried et al, it can be seen that the desiccant cylinder 7 is in surrounding relationship around a tubular heating element 6. As noted in the machine translation of European Patent Application No. 358279 A1 to Fried et al, page 2, ll. 21-23, “With the next start-up of the dishwasher already the desiccant in the drying container becomes again heated and moisture over the air circulation into the rinsing container returned in the rinsing process, thus with the heating of the cleaning fleet.” It is believed that this passage of European Patent Application No. 358279 A1 to Fried et al discloses that, during the next-occurring operation of the dishwasher and, in fact, when the washing of the crockery is still underway – that is, at a time when the cleaning solution is being heated - the desiccant in the desiccant retainer [the desiccant cylinder 7] is again heated and, thus, the moisture is returned via the air conduit to the rinsing container 1.

This passage is not seen to be a teaching that, in the language of claim 10 of the present application, the sorption column is subjected to thermal energy to effect desorption of the sorption column with the thermal energy being at least partly used for at least one of heating the rinsing solution in the washing container and heating the crockery. Instead, it appears that the European Patent Application No. 358279 A1 to

Fried et al arrangement uses the tubular heating element 6 to heat the desiccant cylinder 7, thereby effecting a release of moisture that is retained by the desiccant cylinder 7. The European Patent Application No. 358279 A1 to Fried et al apparently does not use, nor does European Patent Application No. 358279 A1 to Fried et al appear to teach or suggest, that such energy used for desorption be “at least partly used for at least one of heating the rinsing solution in the washing container and heating the crockery,” in the language of claim 10 of the present application. In fact, it appears that the desiccant cylinder 7 of European Patent Application No. 358279 A1 to Fried et al would, upon being so heated, release heat to its surrounding environment and this surrounding environment is in a portion of the dishwasher 1 external to its rinsing container 2. Accordingly, European Patent Application No. 358279 A1 to Fried et al appears to make no suggestion, let alone provide any disclosure of a particular structure, for using such heat to heat a rinsing solution or heat the crockery.

In view of the fact that European Patent Application No. 358279 A1 to Fried et al fails to teach or disclose all of the elements of claim 10 of the present application, claim 10 is clearly not anticipated under 35 U.S.C. §102(b) by European Patent Application No. 358279 A1 to Fried et al and the rejection of claim 10 should be withdrawn. Also, claims 13 - 18 are not anticipated under 35 U.S.C. §102(b) by European Patent Application No. 358279 A1 to Fried et al for at least the same reasons and because they recite additional patentable subject matter.

The Rejection Of Claim 16 under 35 U.S.C. §103(a) as Unpatentable Over European Patent Application No. 358279 A1 to Fried et al in view of US Patent No. 5,343,632 to Dinh

Claim 16 of the present application recites the feature that the dishwasher set forth in claim 10 includes the feature that the air introduced into the washing container via the inlet is cooled. The Office Action asserts that European Patent Application No. 358279 A1 to Fried et al teaches the features of the dishwasher recited in claim 10 but may not teach that the air introduced into the washing container via the inlet is cooled.

However, the Office Action asserts that US Patent No. 5,343,632 to Dinh discloses a cooler/condenser used to cool humid air in order to further remove moisture from the air before the air is recirculated. However, even conceding that US Patent No. 5,343,632 to Dinh discloses such a feature, it can readily be seen that US Patent No. 5,343,632 to Dinh fails to overcome the deficiencies of European Patent Application No. 358279 A1 to Fried et al as discussed above and so.

For these and other reasons, it is submitted that claim 16 of the present application is not properly rejectable as unpatentable under 35 U.S.C. §103(a) over European Patent Application No. 358279 A1 to Fried et al in view of US Patent No. 5,343,632 to Dinh and Applicant respectfully requests withdrawal of this rejection.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of claims 10 and 13 – 23 are respectfully requested. If the Examiner has any questions regarding this amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

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May 26, 2009

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